

OPTICAL MUX/DEMUX

FIG. 1

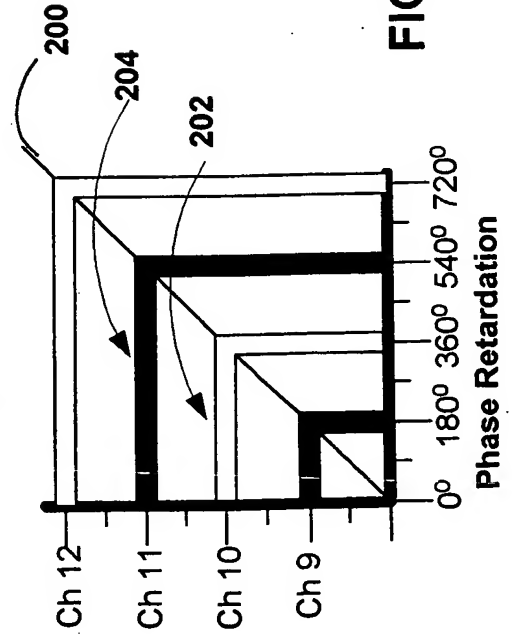


FIG. 2A

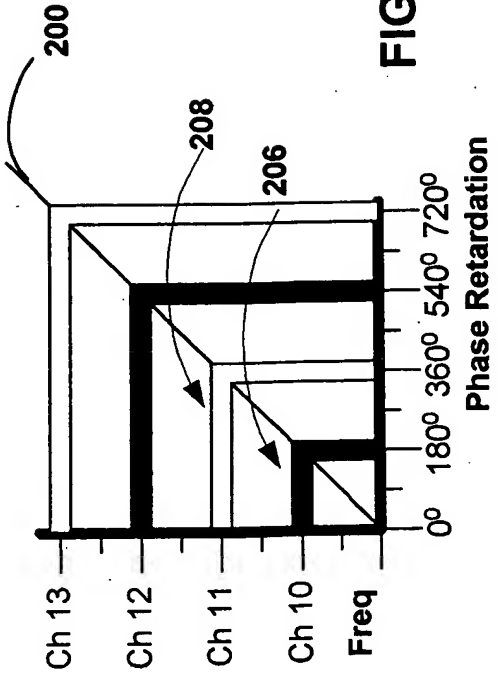


FIG. 2B

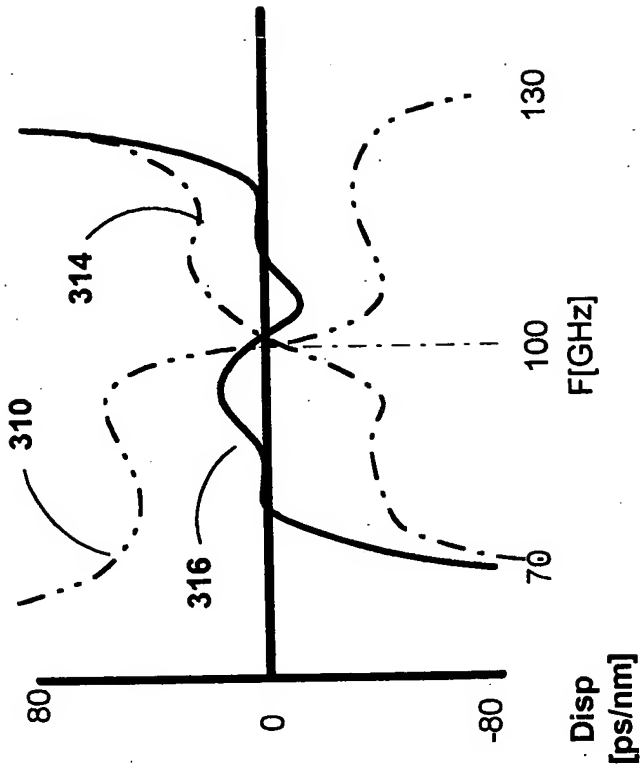


FIG. 3A

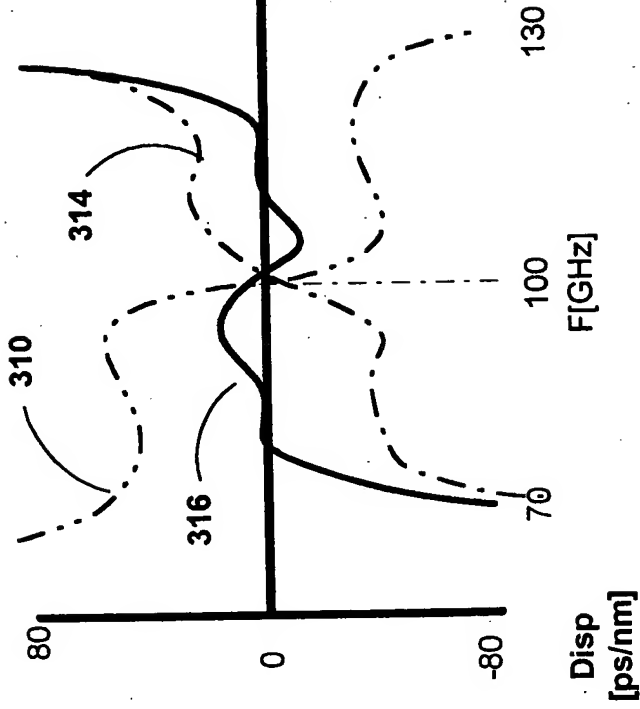


FIG. 3B

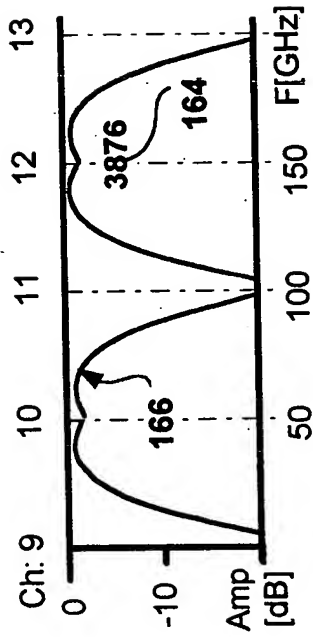


FIG. 4A

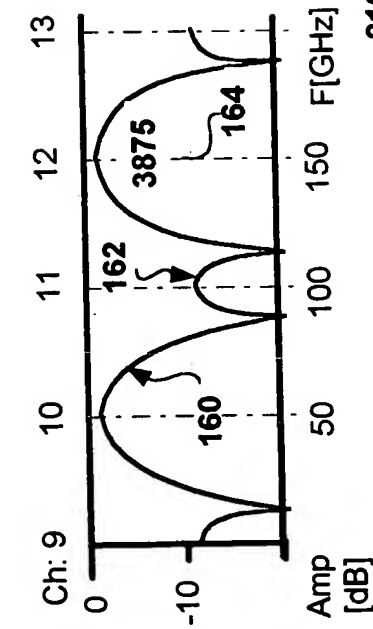


FIG. 4B

EVEN

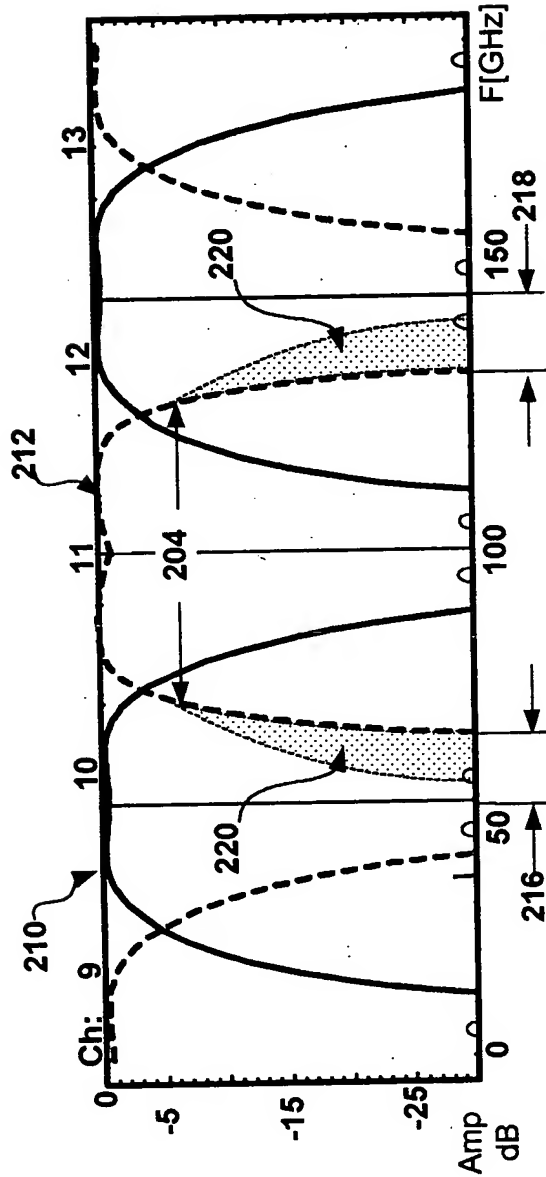


FIG. 4C

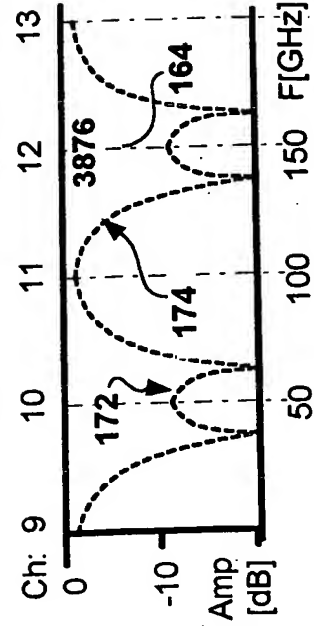


FIG. 4D

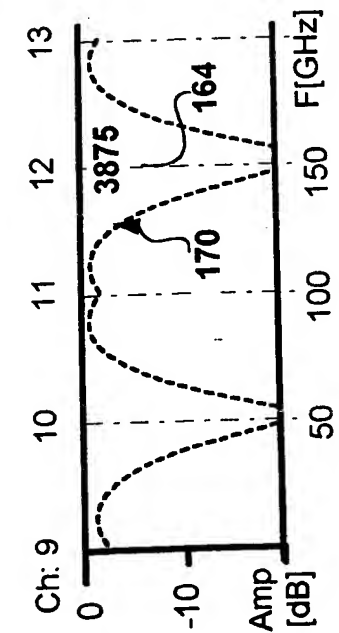


FIG. 4E

ODD

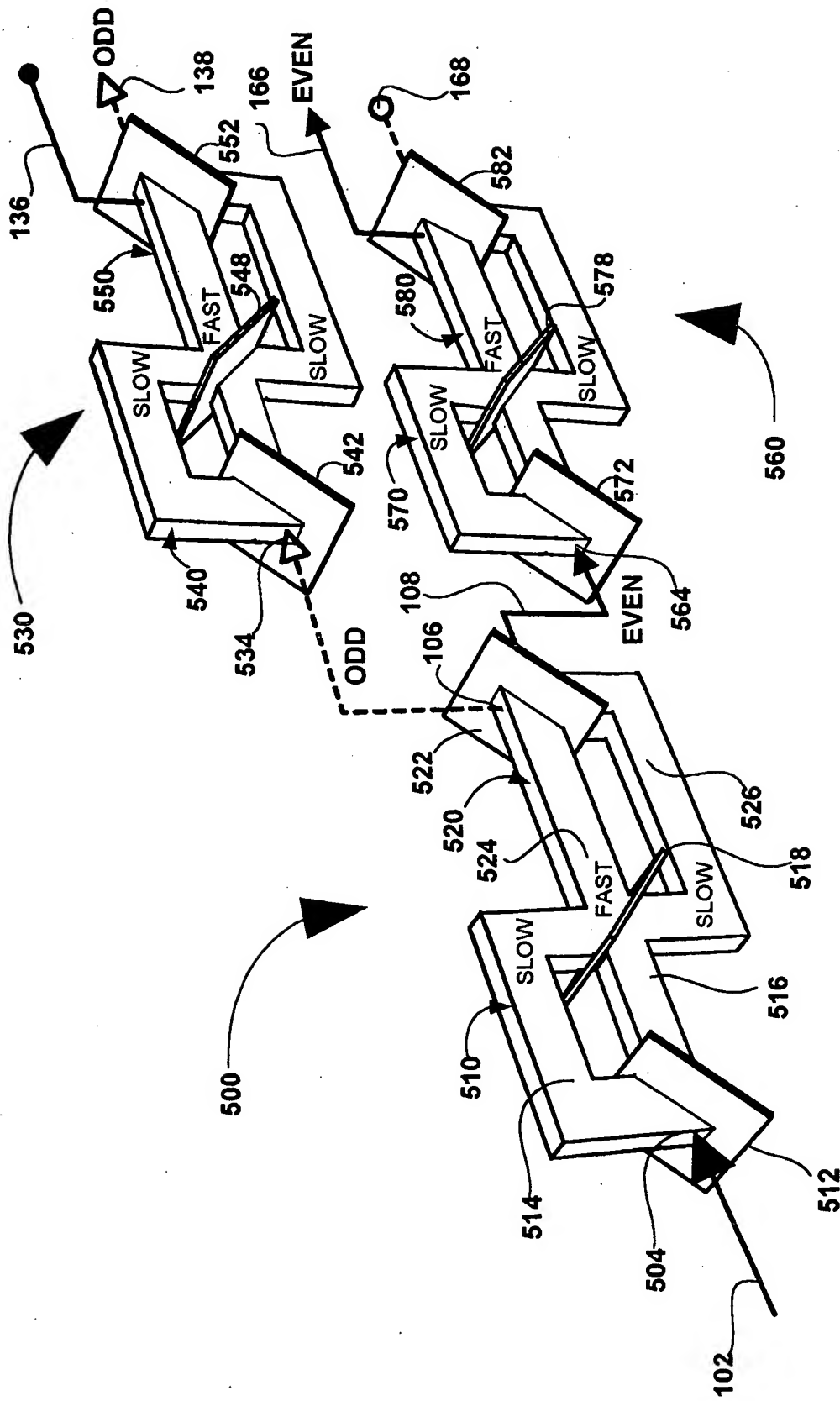


FIG. 5A

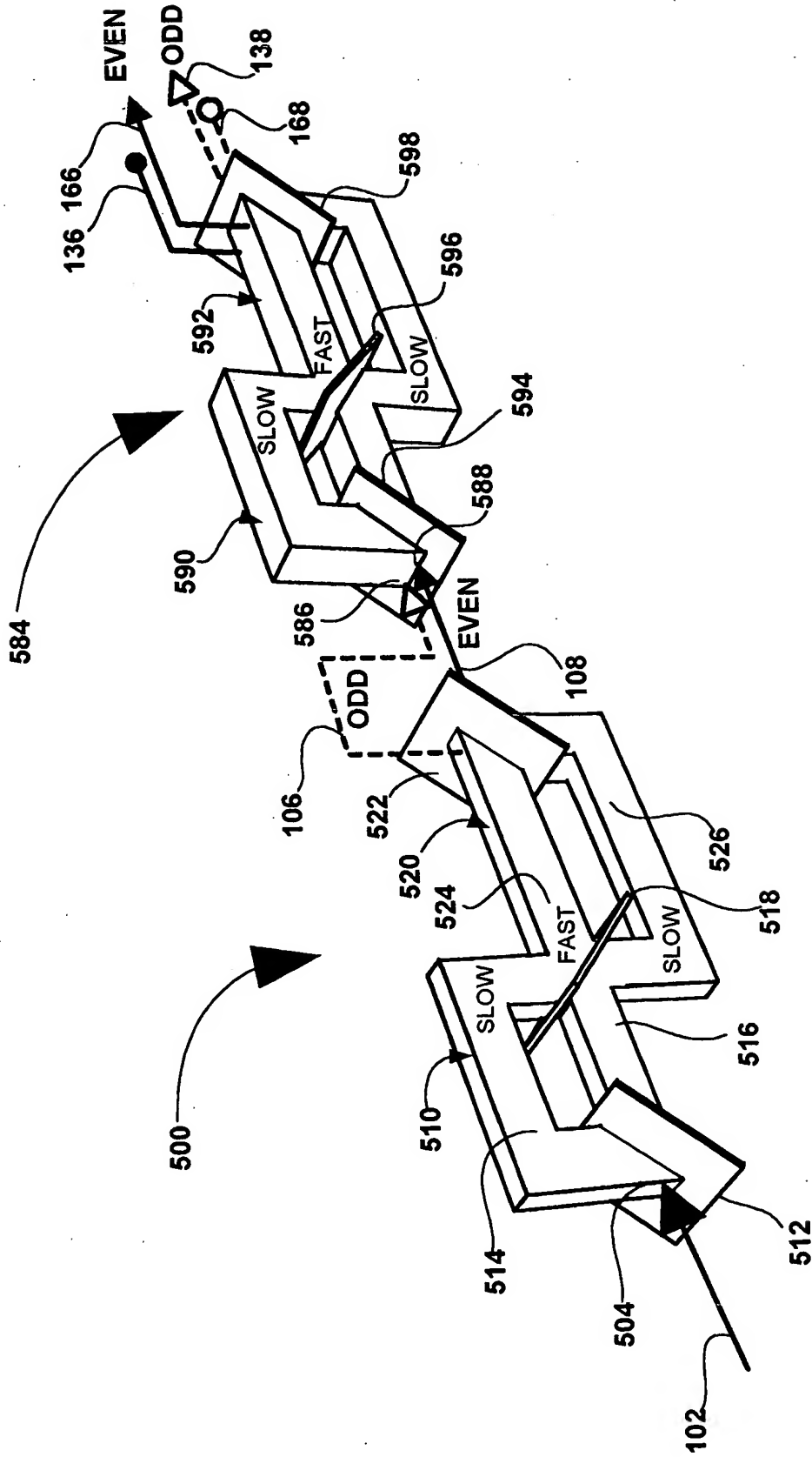


FIG. 5B

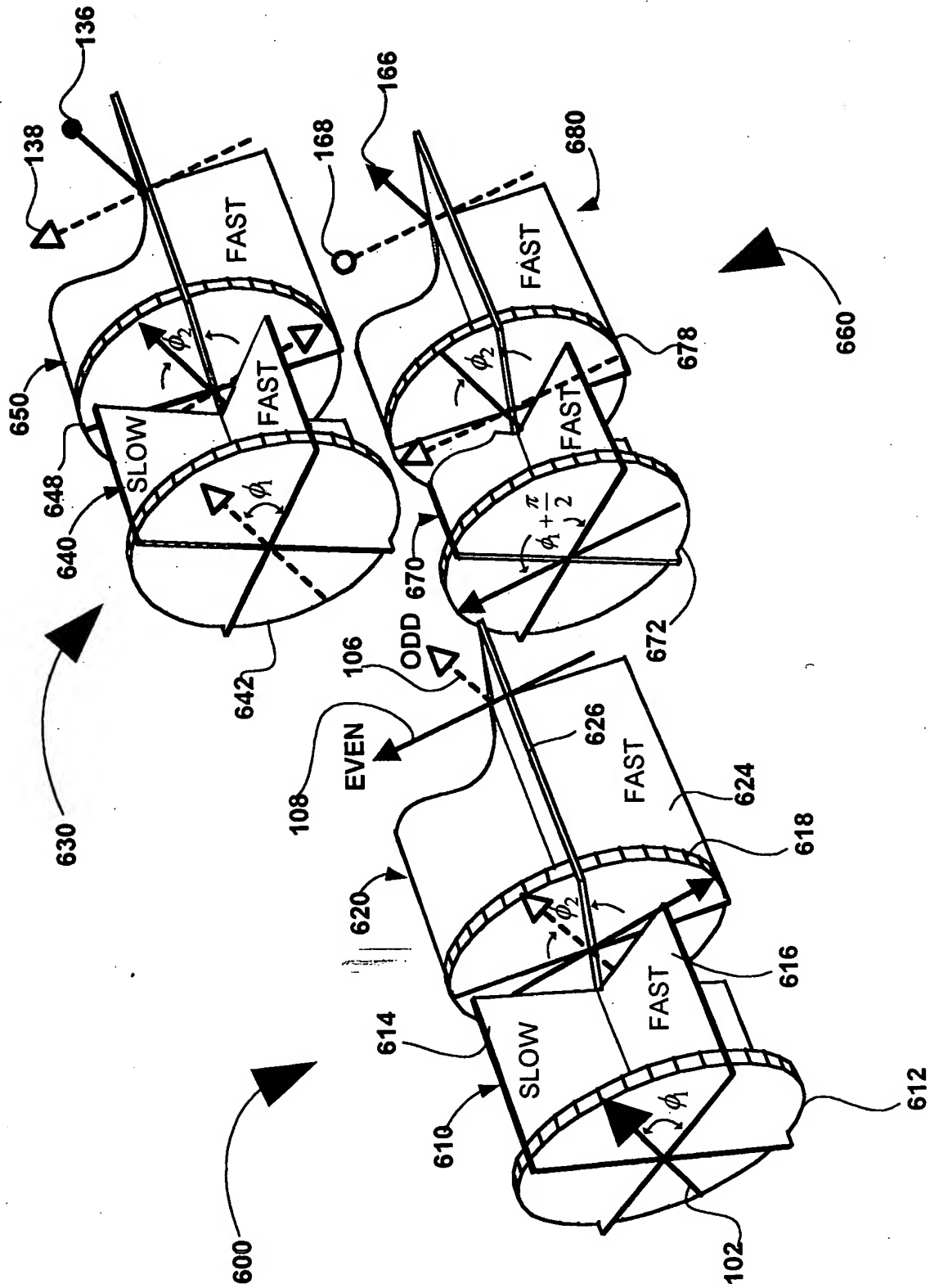


FIG. 6

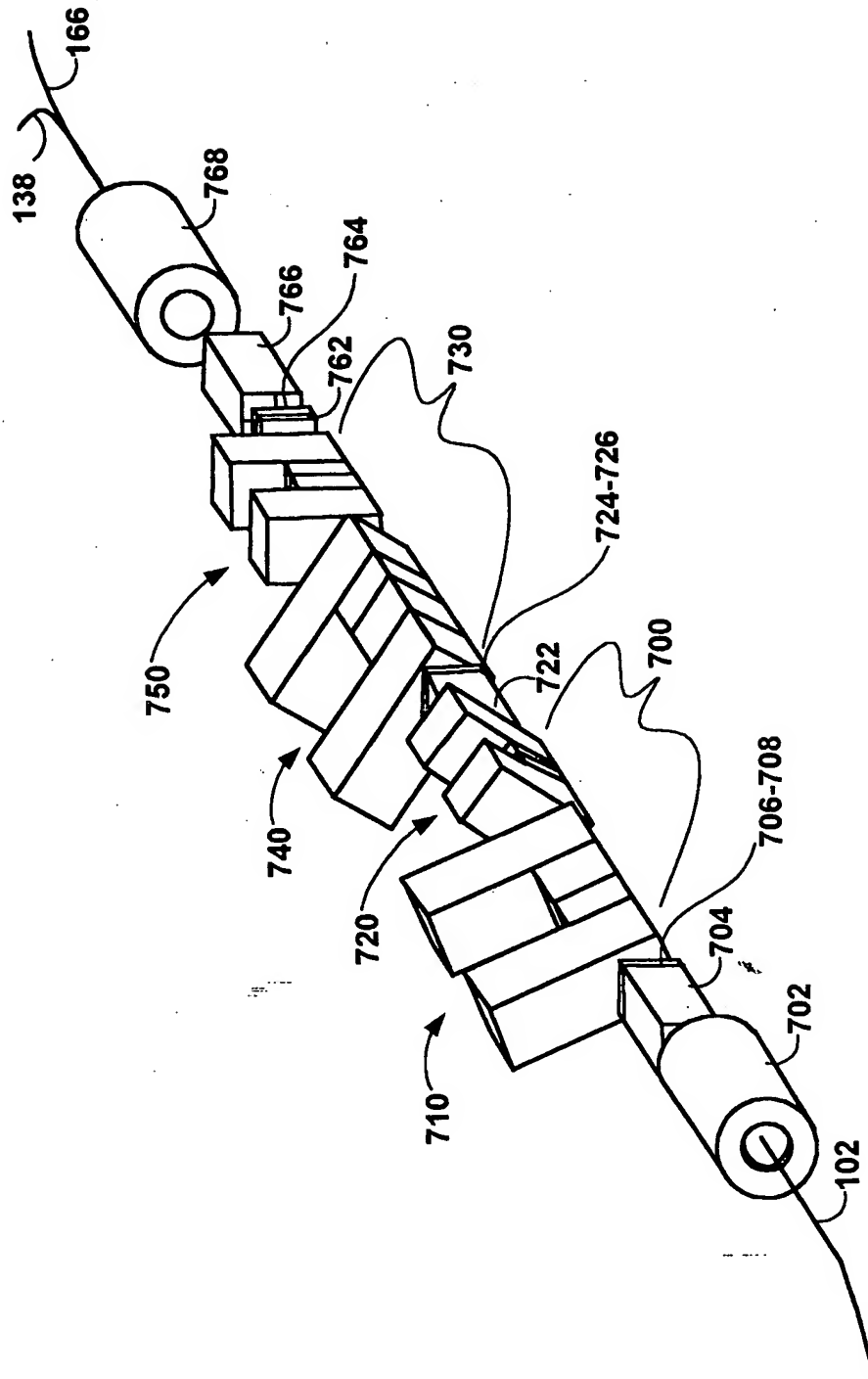


FIG. 7A

FIG. 7B

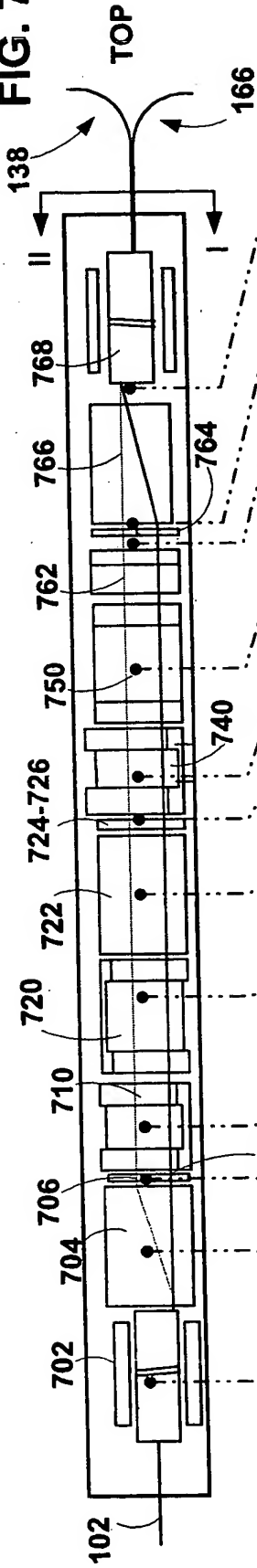


FIG. 7D

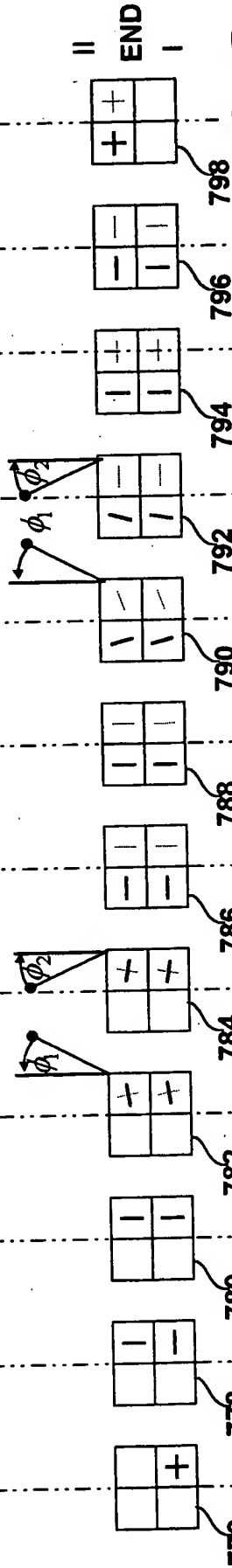
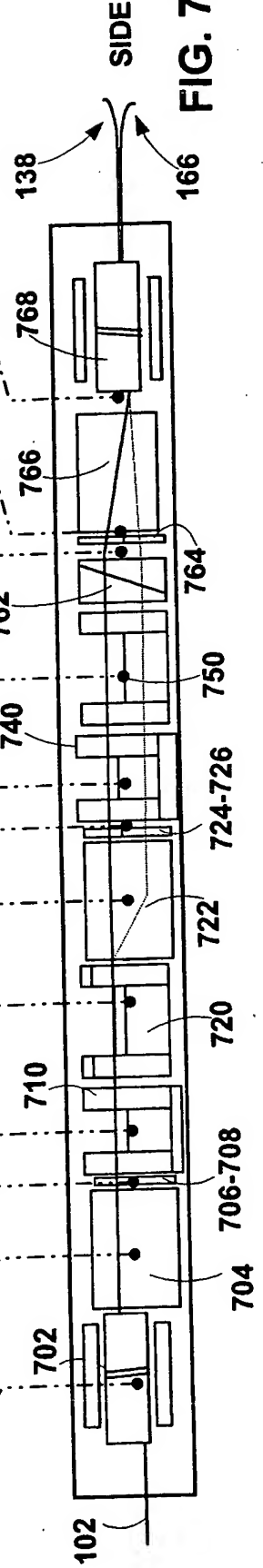
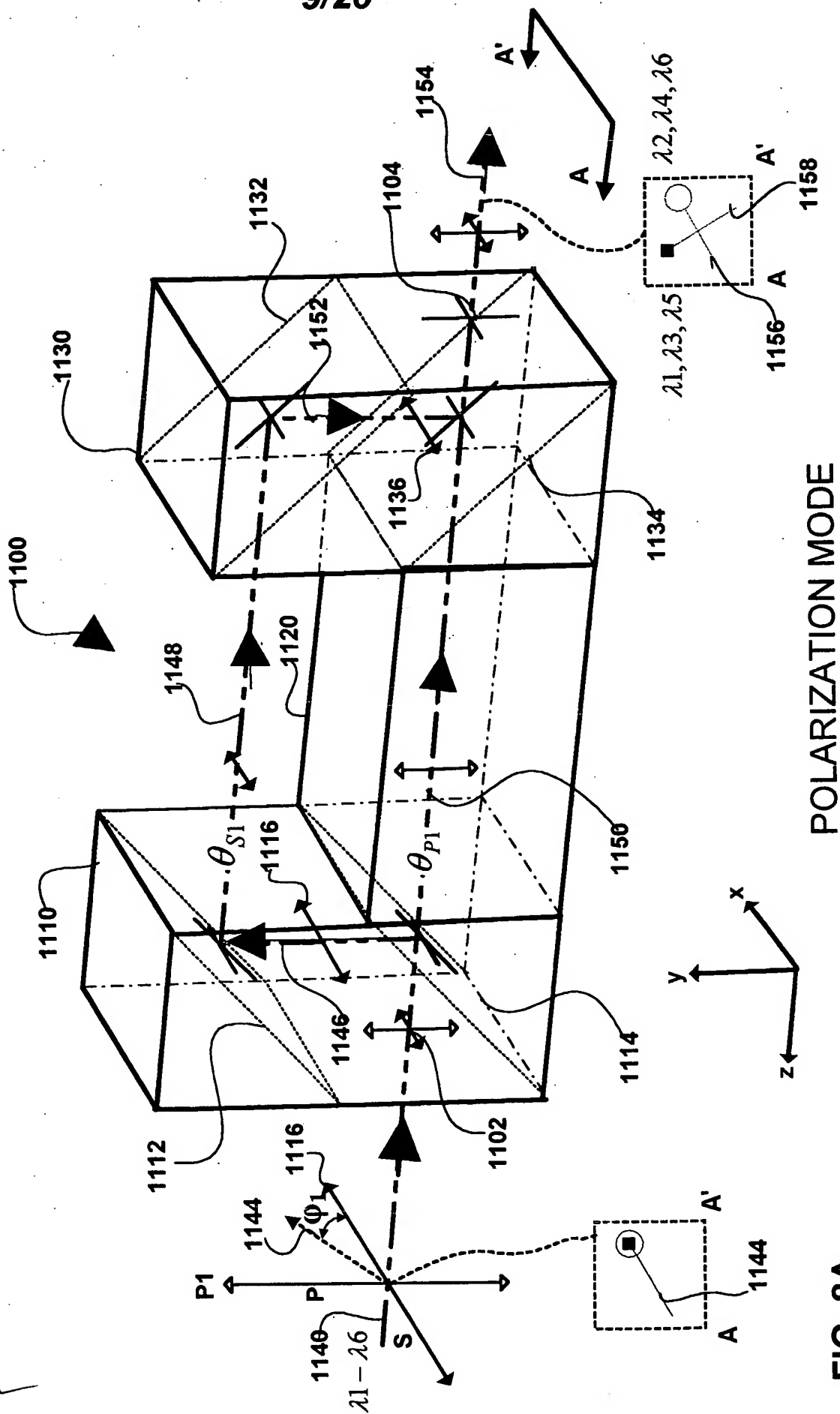


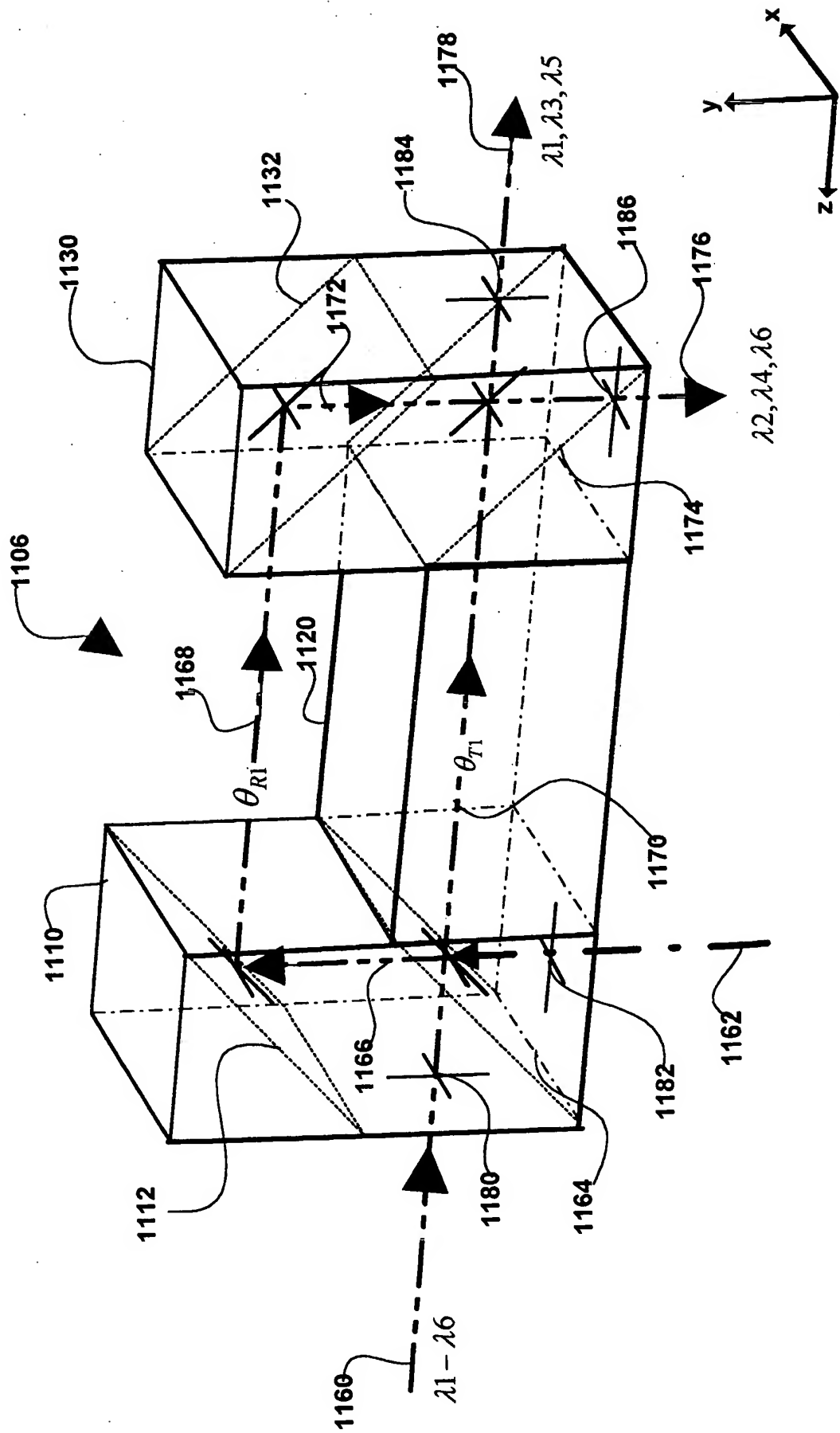
FIG. 7C







**FIG. 8A**



INTENSITY MODE

FIG. 8B

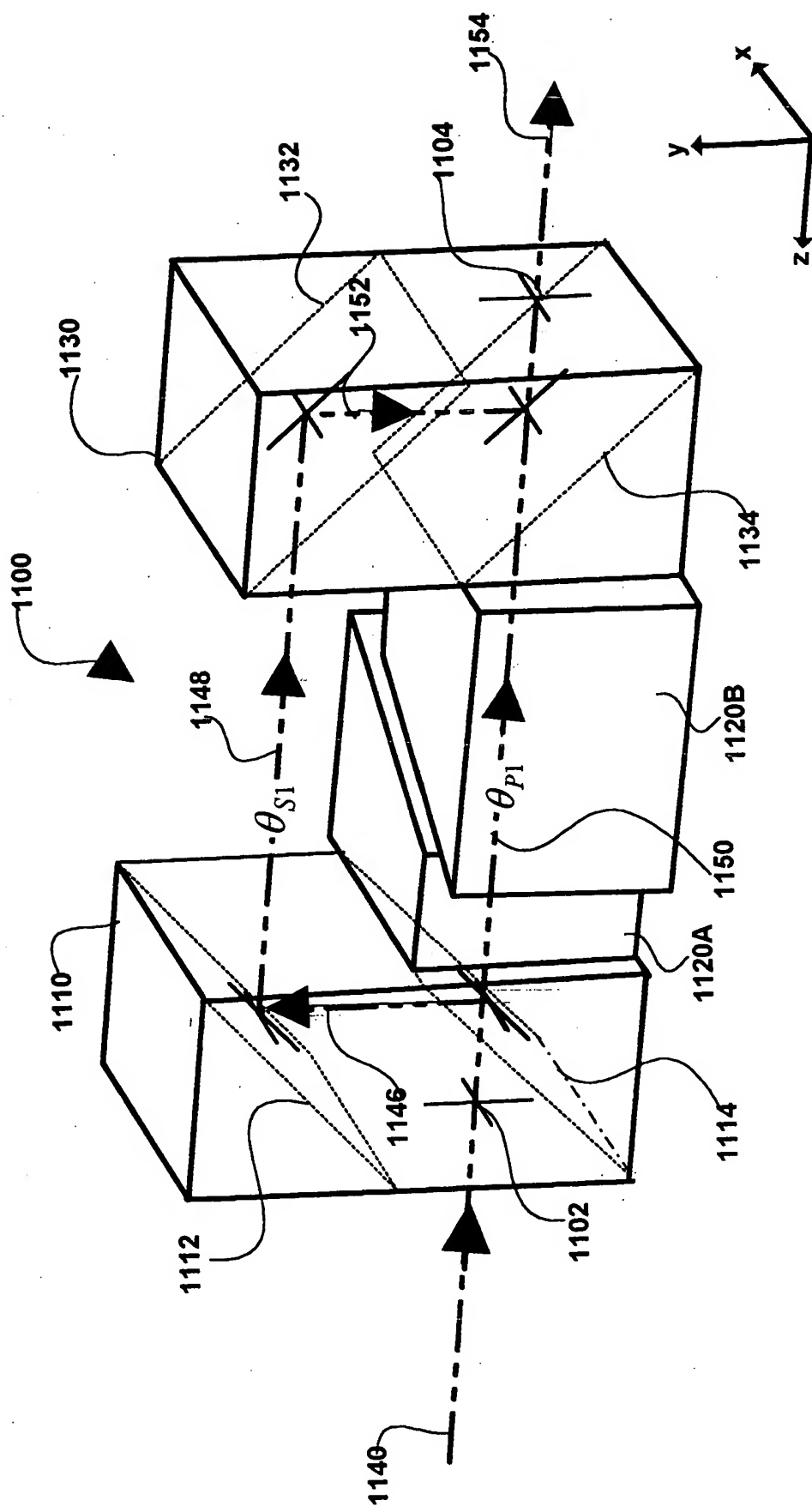
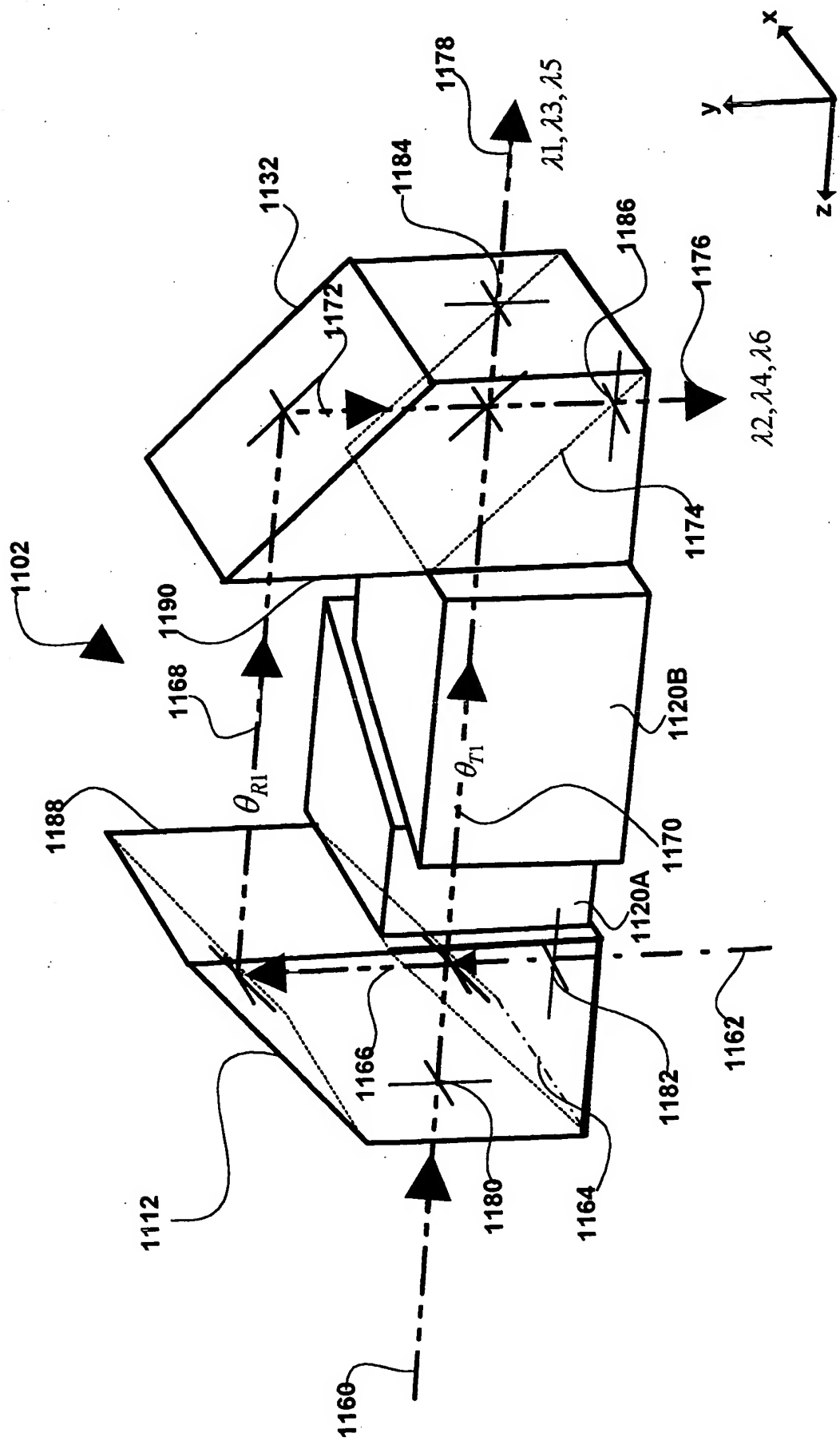
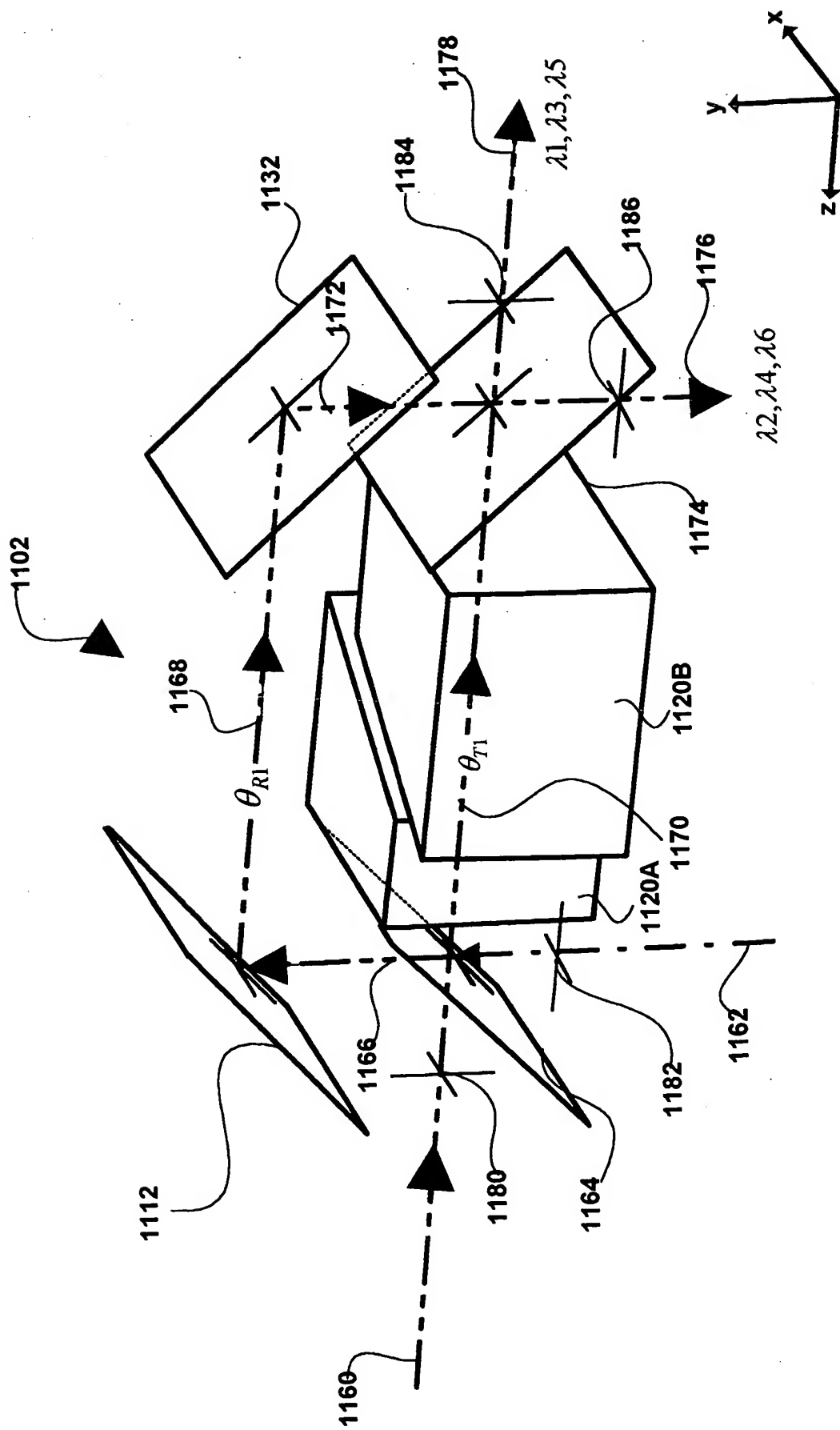


FIG. 8C



INTENSITY MODE

FIG. 8D



INTENSITY MODE

FIG. 8E

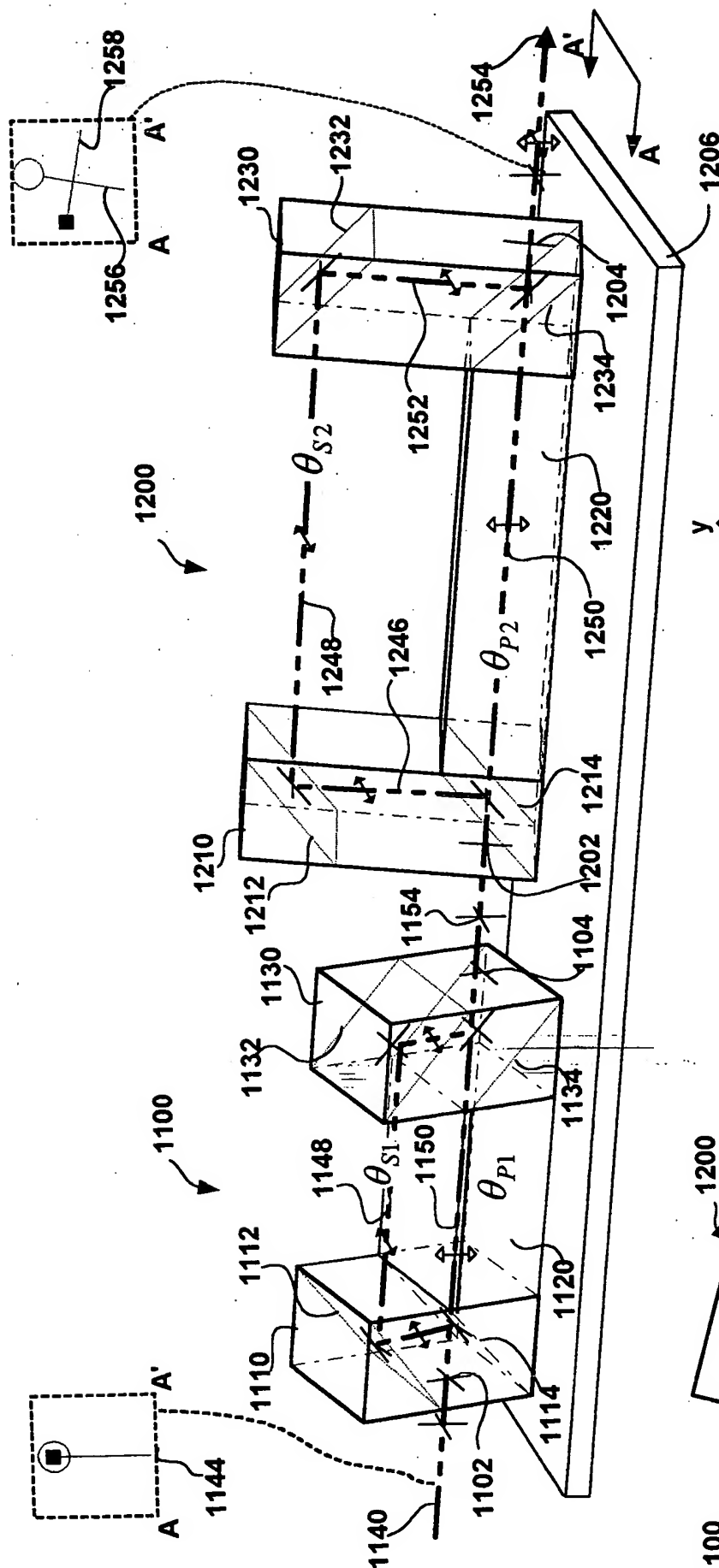


FIG. 9A

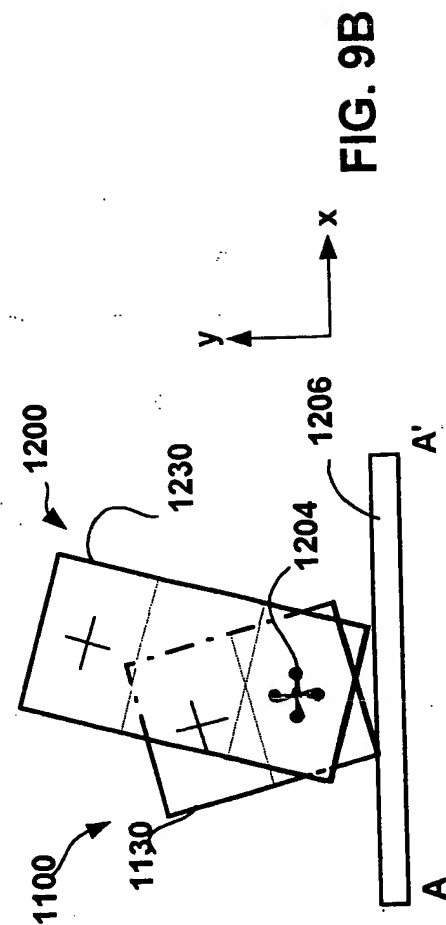


FIG. 9B

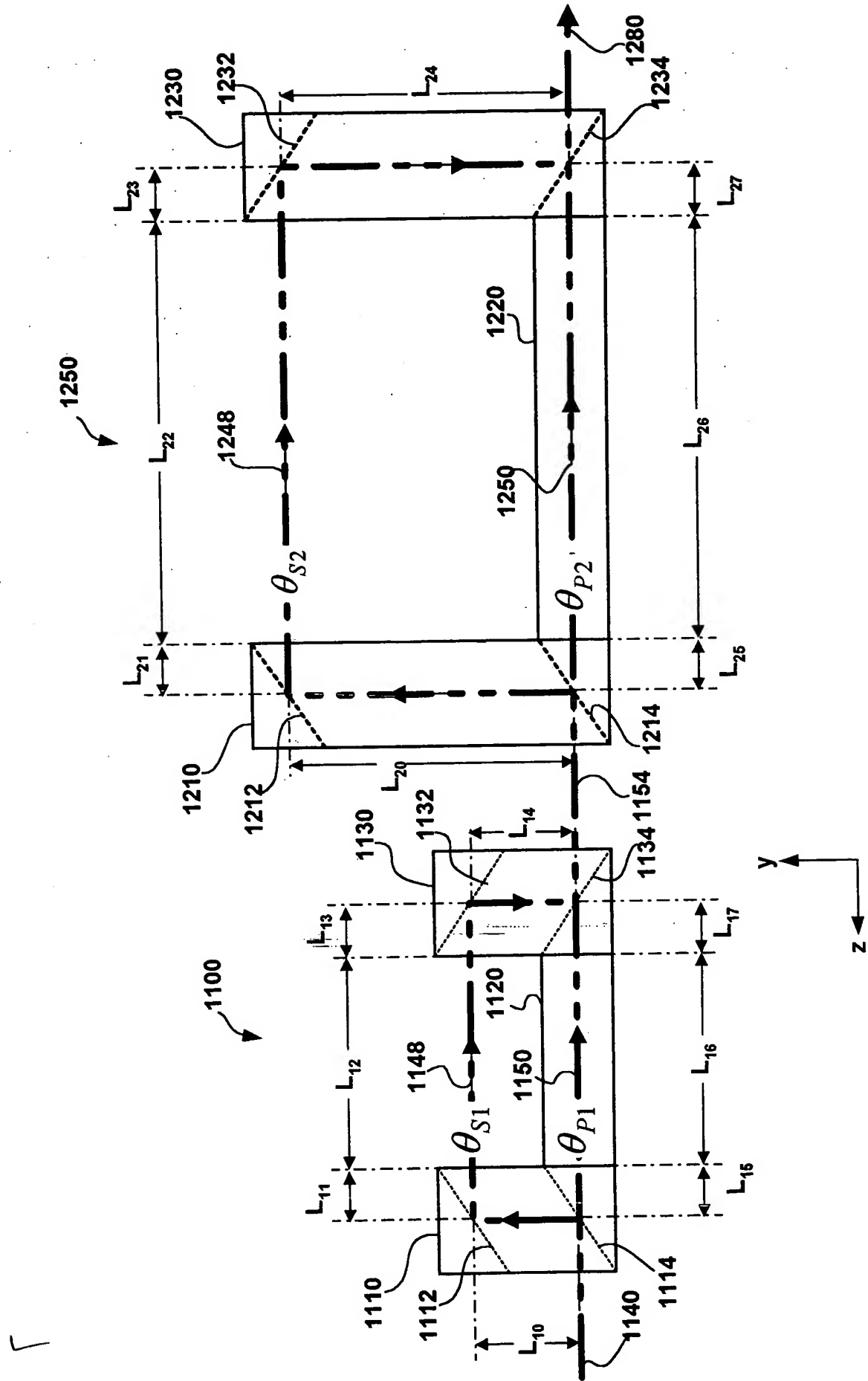


FIG. 9C

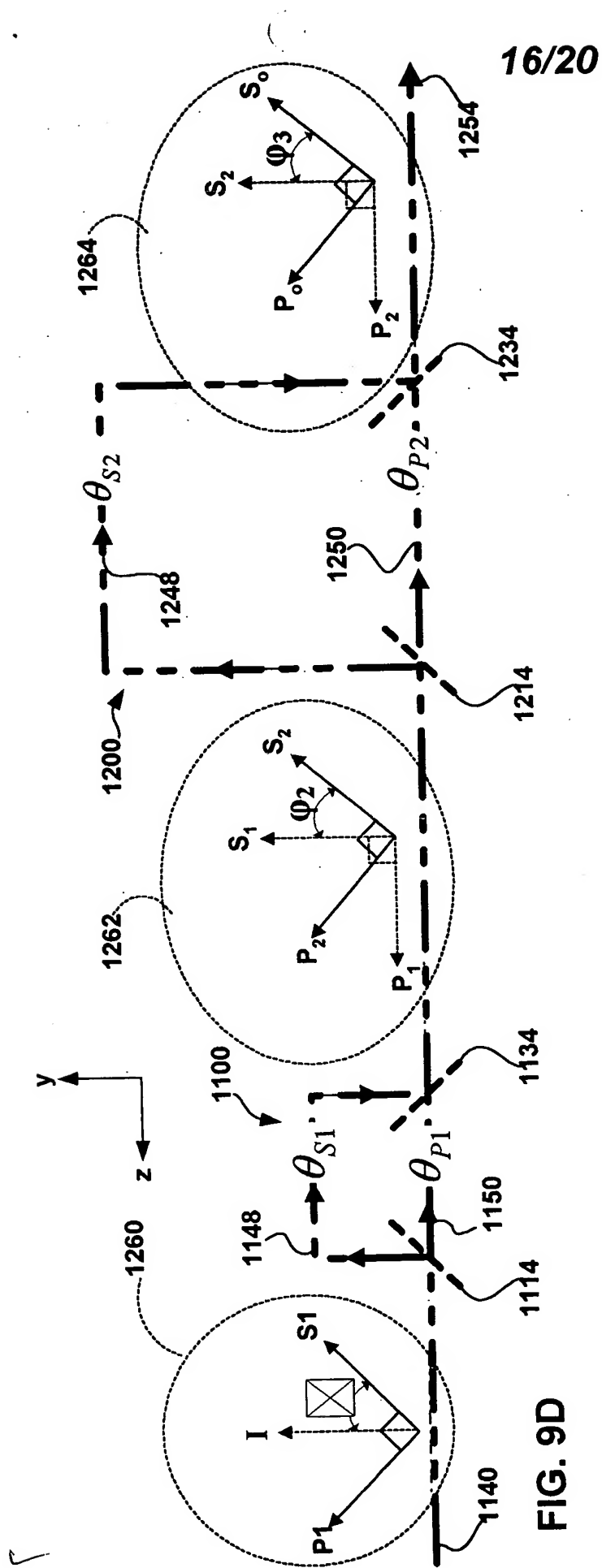


FIG. 9D

$$\begin{aligned}
 \text{Path 1} &= \cos \phi_1 \cdot \cos \phi_2 \cdot \cos \phi_3 \cdot e^{i(\theta_{S1} + \theta_{S2})} \\
 \text{Path 2} &= \cos \phi_1 \cdot \sin \phi_2 \cdot \sin \phi_3 \cdot e^{i(\theta_{S1} + \theta_{P2})} \\
 \text{Path 3} &= \sin \phi_1 \cdot \sin \phi_2 \cdot \cos \phi_3 \cdot e^{i(\theta_{P1} + \theta_{S2})} \\
 \text{Path 4} &= \sin \phi_1 \cdot \cos \phi_2 \cdot \sin \phi_3 \cdot e^{i(\theta_{P1} + \theta_{P2})}
 \end{aligned}$$

FIG. 9E



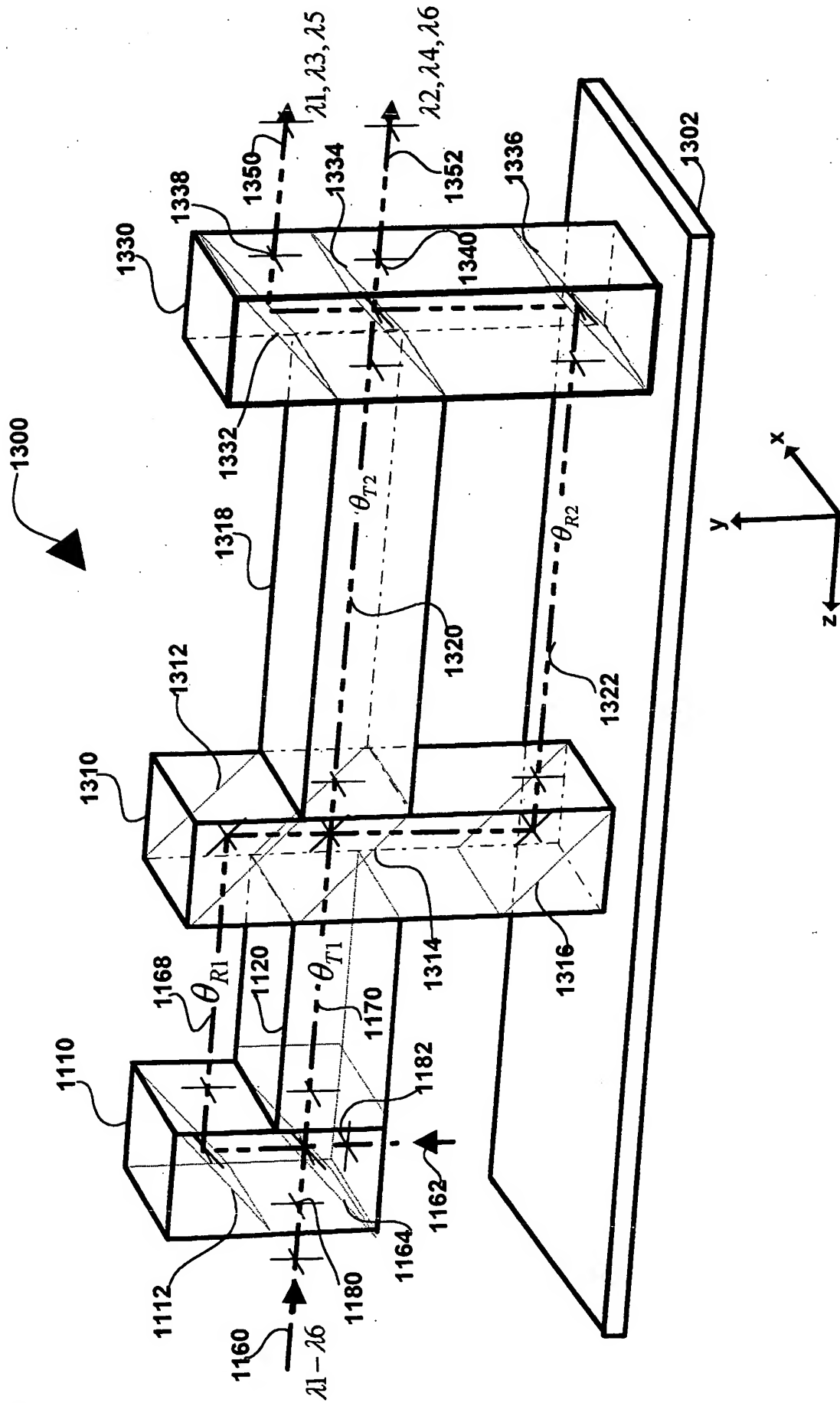


FIG. 10A

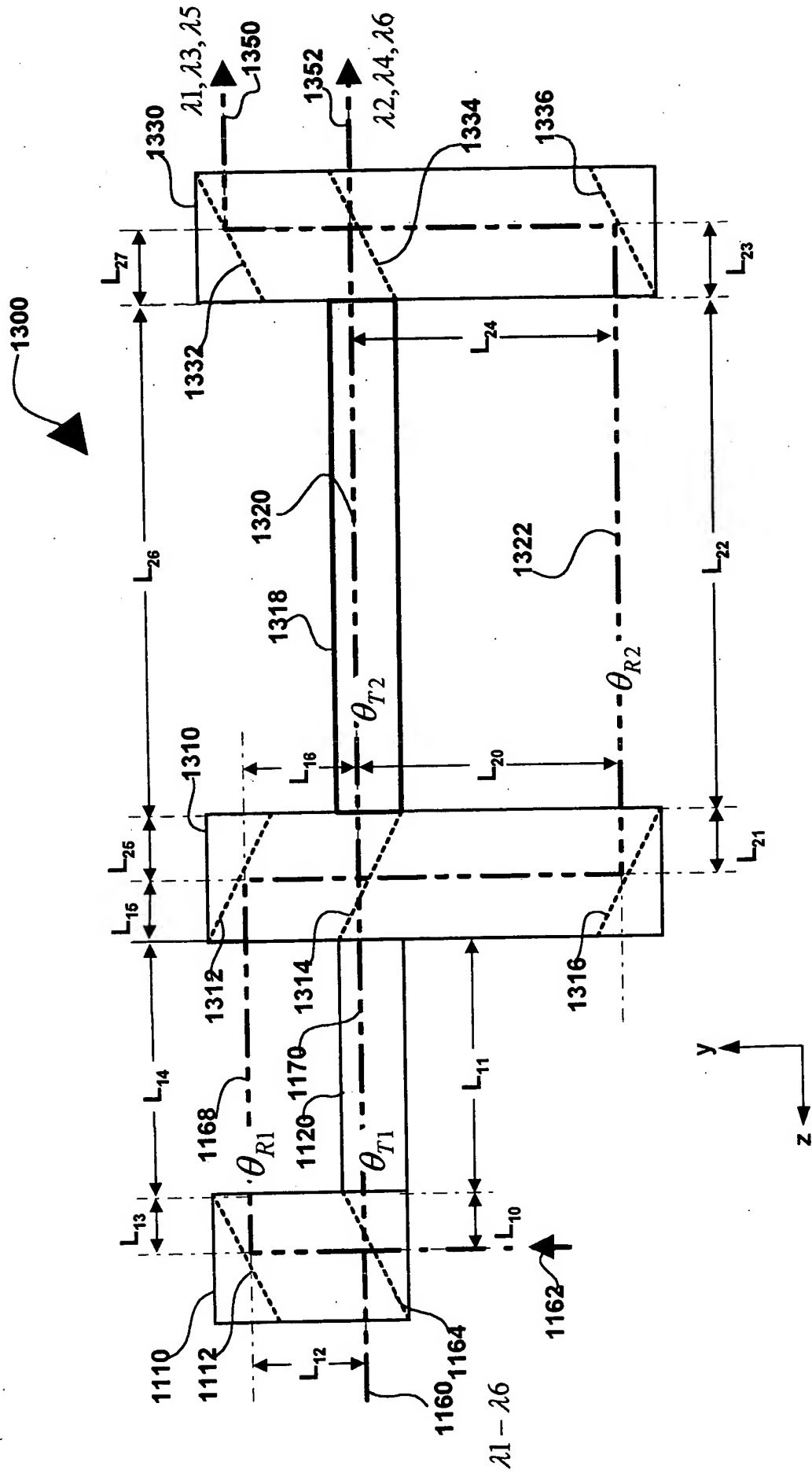


FIG. 10B

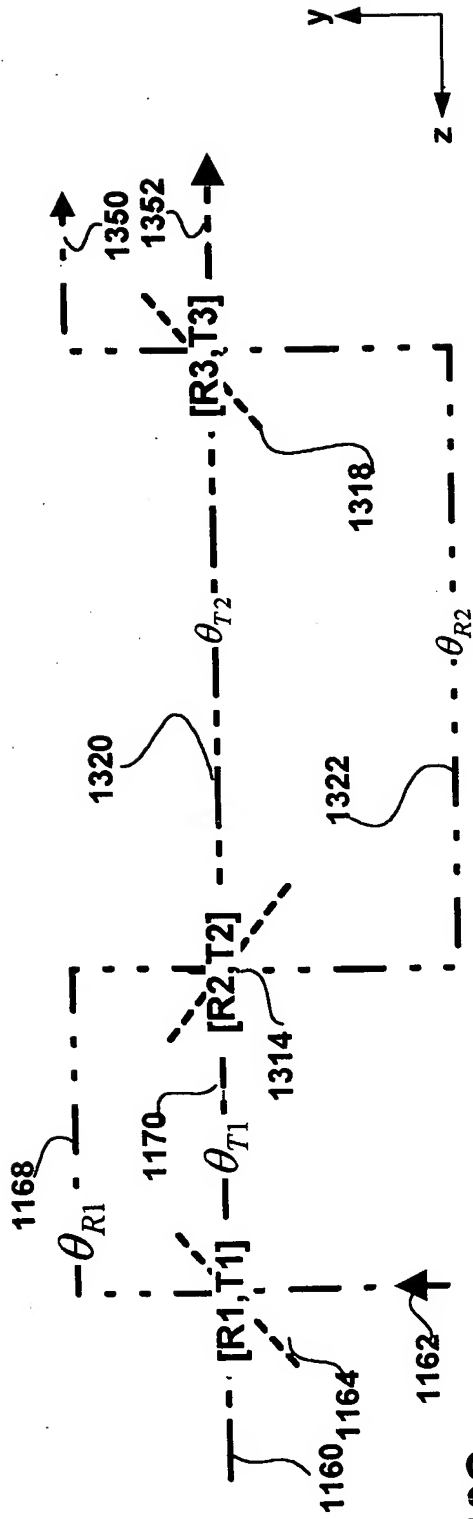


FIG. 10C

$$\begin{aligned}
 \text{Path 1} &= R_1 \cdot T_2 \cdot T_3 \cdot e^{i(\theta_{R1} + \theta_{R2})} \\
 \text{Path 2} &= R_1 \cdot R_2 \cdot R_3 \cdot e^{i(\theta_{R1} + \theta_{T2})} \\
 \text{Path 3} &= T_1 \cdot T_2 \cdot R_3 \cdot e^{i(\theta_{T1} + \theta_{T2})} \\
 \text{Path 4} &= T_1 \cdot R_2 \cdot T_3 \cdot e^{i(\theta_{T1} + \theta_{R2})}
 \end{aligned}$$

FIG. 10D shows the four paths defined by the equations above, with labels 1388, 1390, 1392, and 1394 corresponding to the equations. The paths are represented by wavy lines, with labels 1396 and 1398 at the bottom.

FIG. 10D

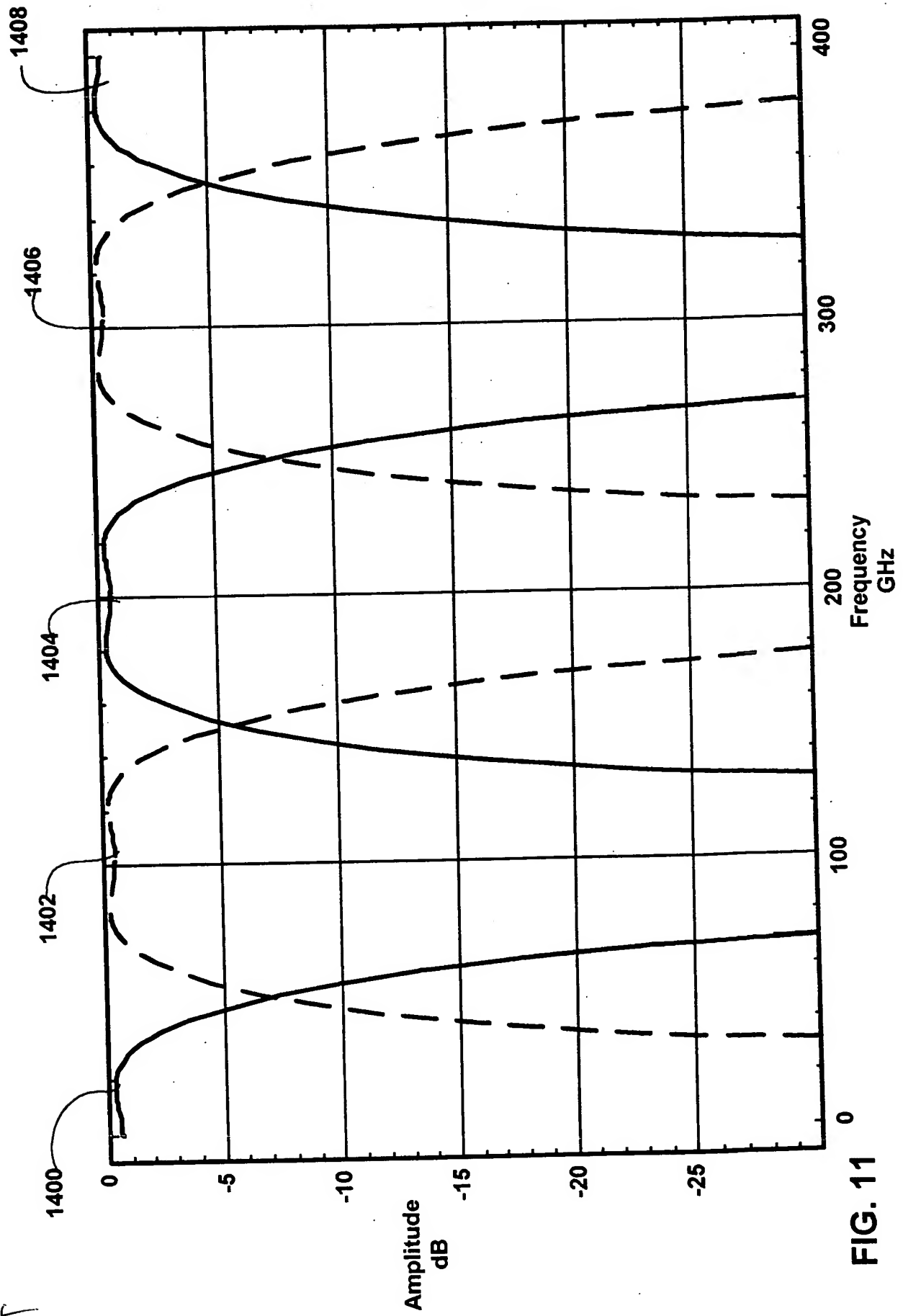


FIG. 11